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THE REAL PROBLEM OF ALSACE-LORRAINE

BY SYDNEY BROOKS

THE question of Alsace-Lorraine is usually and justly spoken of in terms of politics and sentiment. And these undoubtedly are the aspects that have made it for over forty years the true pivot of all European affairs. The incurable antagonisms which resulted from Germany's determination to hold Alsace-Lorraine and from the silent but passionate longing of France to regain her lost provinces have been the root cause of all the alliances, all the diplomatic adventures, all the groupings and re-groupings of the Powers, and especially of the monstrous growth of armaments, that have made up the sorry tale of Europe during the past four decades. So far as the measureless cataclysm in which the whole world is now engulfed can be traced back to any single source, that source is Alsace-Lorraine. Europe had no chance of a sane and stable peace so long as the greatest nation in Europe could neither forget nor forgive the brutal injury of which she had been the victim. France is not fighting to-day for conquest but for justice and restitution. What the restoration of Alsace-Lorraine may mean to her commercially and materially she neither knows nor cares. The impulse that fires and sustains her people is the resolve to right the wrong of 1870 and to reunite to *la patrie* the cherished and essential parts that were wrenched from it. And that resolve will either be realized to the full or France is crushed and the Allies lose the war.

But Alsace-Lorraine, though this is little known or recognized, is even more a many-sided problem of international and competitive industry than of politics or sentiment. People who have not looked into it imagine that to restore the provinces to France will settle the whole question. On the contrary it will only settle part of it, and not perhaps the

most important part. No one can begin to understand all that is involved in this matter unless he has a clear idea of what the possession of Alsace-Lorraine has meant to German industrialism and of the complex and critical consequences to Germany, to France and to Great Britain that must follow from another change of sovereignty.

When Moltke in 1870 insisted upon, and Bismarck against his better judgment assented to, the annexation of Alsace-Lorraine, the main thought in their minds was that of securing a strategic frontier. They secured, though they did not know it at the time, something far more valuable than that, something that has proved the base on which Germany has built up her towering fabric of prosperity and power, something without which Germany could not have begun this war or could not have waged it for six months. They secured the largest deposit of iron ore in Europe and the second largest in the world, surpassed in value and extent only by the Lake Superior deposit in Michigan, Wisconsin and Minnesota. The soil of the lost provinces has made Germany's fortunes. She has derived from it her metallurgical ascendancy, the motive power for her industries, her wealth, and as a consequence her naval, military and political power.

The area covered by this deposit embraces the Longwy and Briey districts in France, now occupied by the German armies, and portions of German Lorraine, of Luxemburg, and of Belgium, also for the moment in German possession. If Germany could secure a peace based on her present military position the whole of this wealth of iron ore, estimated at some 5,000,000,000 tons, would pass under her control. As it is, rather more than half the deposit is supposed to lie on the French side of the border and rather less than half in German Lorraine and Luxemburg. That being so, it may be asked why Germany, when she had the chance in 1870, did not annex the entire ore-yielding area instead of allowing it to be divided between France and herself. The answer is that she would undoubtedly have done so had she realized the value of her treasure-trove. But forty-seven years ago metallurgists generally regarded phosphoric ores, which formed the greater part of the Lorraine strata, as worthless and unworkable. The Germans seized everything that in the then state of science was known to be profitable and relinquished the rest to the French. But less than five years

later the mining industry was revolutionized by the discovery of a process for dephosphorizing ores. Instantly the value of the ferruginous districts annexed by the Germans was indefinitely multiplied. But at the same time the portions of the basin they had contemptuously allowed to remain in the possession of the French were redeemed at a stroke from comparative worthlessness to a rich productivity.

There are reckoned to be 2,800 million tons of iron ore in all Germany. Of these Lorraine alone is responsible for some 2,000 millions or five-sevenths of the Empire's total supply. When Germany hypothecated the Lorraine beds they were yielding about 500,000 tons of ore a year. In 1875 they still yielded less than three-quarters of a million. Then came Thomas's discovery of the dephosphorizing process and the figures shot up like a rocket until in the year before the war the Germans were extracting from Lorraine over 21,000,000 tons of ore, more than three-fifths of which was produced by the Thomas method. Up to 1903 Germany had no need to import from abroad a single ton of ore. Lorraine alone enabled her to maintain for thirty years an unprecedented industrial expansion. But whether the pace abnormally quickened some ten years before the war, or whether she had commenced to prepare for its outbreak, or whether the Lorraine ores began to deteriorate, Germany between 1903 and 1913 was buying ore abroad in increasing quantities. About one-third of her total consumption was imported from foreign countries in the year preceding the war. That supply has, of course, for the most part been cut off and for the past three years Germany has depended almost entirely on the Lorraine mines for the iron and steel which are the basis of all modern warfare. She has got some from the occupied districts of France and Belgium and Luxemburg, but from three-fifths to four-fifths of her output during the war has come from Lorraine. Without the production of the provinces she snatched from France forty-seven years ago Germany would long since have exhausted her capacity for turning out the material of war. Liberate those provinces from her clutch—with their 21,000,000 tons of iron ore a year, their 19,000,000 tons of iron smeltings, their 19,000,000 tons of steel smeltings, and the useful coal fields of the Sarre valley—and a long step has been taken towards binding her down to peace.

Most of the ore found in the Lorraine basin on both sides

of the frontier is inferior to the Lake Superior deposits and the grade varies considerably from one district to another. From 30 to 40 per cent may be taken as an average of the iron content. But there are compensating advantages in that, by properly blending the ore from different districts, it has been found possible to secure a mixture containing the essential slag-forming elements. In other words, this self-fluxing feature offsets to some extent the comparatively low value in iron. Moreover as the ore is highly phosphoric, the resultant slag makes a much sought after and profitable fertilizer. America, for instance, in 1913 imported 15,000 tons of basic slag, valued at \$10 per ton, and in the following year 74,588 tons valued at \$20 per ton; while Russia just before the war was importing rather more than 180,000 tons a year. The bulk of this came from Germany, which in 1912 exported 290,000 tons and nearly as much in 1913. The Lorraine ores, in short, have yielded her as a mere by-product an abundant supply of fertilizer for her own domestic use and for export abroad.

It has been already remarked that, taking the ferruginous district as a whole, rather more than half of it lies on the French side of the border and rather less than half in German Lorraine and Luxemburg. The proportion of existing iron ore reserves in favor of France has even been put as high as 59 per cent of the total. The figure is a comforting one until we remember that the Briey basin, from which in 1913 was extracted no less than nine-tenths of the entire French output of iron ore, is now in German occupation. Then it takes on a somewhat sinister significance not only in relation to the immediate purposes of the war but as a measure of the determined efforts which Germany will undoubtedly put forth, first, to retain Alsace-Lorraine; secondly, to add to it by another annexation the rich ore-bearing districts just across the French frontier which she now holds. But whatever be the precise relative value of the German and the French reserves of ore, it is the fact that in 1913 Alsace-Lorraine equalled the whole French output of pig-iron and produced by itself only one-third less steel than all the French steel works combined.

One reason for this—and it is a reason that goes to the root of the problem we are now considering—is that France is badly off for, while Germany and Belgium are well provided with, coking coal. Now in iron smelting it is almost

an axiom that the ore, being the more valuable product and better able to stand the cost of transport, must be brought to the coal, and not the coal to the ore. A very large proportion, therefore, of the French ore was smelted into pig iron in the blast furnaces of Germany and of Belgium, much to the advantage of the iron industries in both of these countries, but of doubtful benefit to France. Had the French Government been more alert to what was going on, had they realized the importance of the iron industry to France, or set to work to encourage the development of French iron smelting, they might in a large degree have counteracted the unhealthy conditions which enabled Germany and Belgium to flourish on the raw material exported to them from France.

The general outline of the issue that the war is shaping and will determine thus becomes clear. Suppose Germany were to win and were to annex the greater half of the ferruginous basin that lies on French soil. Territorially it would be a very small acquisition. Economically its value would be inestimable. It would mean that after the war Germany would be able to raise some 46,000,000 tons of iron ore a year while the French output would be reduced to a bare 4,000,000 tons. Suppose, on the other hand, that the Allied victory is as complete as we all intend it shall be and that Alsace-Lorraine is restored to France. The situation in that case would be almost precisely reversed. France would be in a position to extract about 43,000,000 tons of ore a year, and Germany would have to remain satisfied with a maximum yield of some 8,000,000 tons. No blow could more effectually cripple German industrialism, and with it Germany's capacity to organize another war, than the loss of the Lorraine ore beds; and nothing could so certainly and so speedily re-establish the economic equilibrium of France as to regain possession of them. In the fate of Alsace-Lorraine there is involved nothing less than the industrial primacy of Europe.

Even, however, when France has resumed her rightful ownership of the lost provinces and in doing so has become the supreme store-house of iron ore on the Continent, the coal problem will still remain. Not only will it remain; it will be aggravated—and in a form that will ask for its right solution from both the French and the British Governments a high degree of commercial diplomacy. We have seen

already that her deficiency in coking coal practically compelled France to send her ore to be smelted in Belgium and Germany. When the addition of the Lorraine beds has virtually doubled the output of ore, her need of coal will be proportionately greater and more urgent. Where is she to get it from? Great Britain or Germany? Wales and Northumberland or Westphalia? From her Ally with whom a mutually advantageous bargain can be struck, or from her enemy who will certainly use his supply of coal as a magnet to attract French ore, to build up anew his iron and steel industries, and to dominate French metallurgy in the future as in the past? It is clearly an almost vital interest both for France and Great Britain that the formation of a huge Franco-German cartel, based on the reciprocal exchange of coal for ore, should be prevented, that we should ourselves supply France with the coke that will enable her to do her own smelting, and that we should take from her in return the iron ore that we now import from Sweden.

France before the war consumed some 62,000,000 tons of coal a year. Of these she raised herself 41,000,000 tons and imported 21,000,000, about half of which came from Great Britain and the remainder from Germany and Belgium. With the restitution of Alsace-Lorraine she will require at the least 40,000,000 tons a year extra. What sources of supply can she look to? There are coal mines in Lorraine itself but they produced before the war less than 3,500,000 tons per annum. There is a much more important coal field in the little valley of the Sarre which spreads out beyond the northern border of Lorraine, which used to be a French possession up to 1815, and which M. Ribot a few weeks ago intimated that France will claim to have returned to her in the terms of settlement. These Sarre mines are good perhaps for an annual output of 15,000,000 tons. There are other mines in Normandy and elsewhere in France that might be further developed. France, again, has a supply of unused water power that has been estimated as the equivalent of 9,000,000 tons of coal; and French diplomacy is hopeful of creating a self-governing buffer-State on the left bank of the Rhine that will allow her a tariff-free access to the very considerable coal-fields that will be contained within its boundaries.

But it is obvious that the availability of many of these sources of supply is dubious and speculative. France may

not get the Sarre valley; the buffer-State of her dreams may prove impossible of realization; her own resources of coal or its equivalent in water power may turn out to be less productive than some enthusiastic Frenchmen at present suspect. In which case she will have to depend for the coke to convert her old and her new deposits of ore either on Westphalia or on Great Britain. From Westphalia it will be forthcoming only on terms that compel France to furnish the raw material for the German iron and steel trades. From Great Britain, if we are alert enough to understand and to seize our opportunity, it can be had without any onerous conditions, without any future backfire, and in a way that will work out to the commercial and political advantage of both countries.

For this end, being assured beforehand of the hearty co-operation of the French, what we in Great Britain have to do is to devise the ways and means of transporting our coal to the Lorraine basin at prices that will compete successfully with the Westphalian mine-owners. The French experts who look ahead and who have interested themselves in the question have suggested various plans for achieving this object. The object itself is perfectly attainable. Even before the war some British coal found its way to the Lorraine beds and it is no more impossible for ships to carry coal from Newcastle to Lorraine and bring back iron ore, than Herr Thyssen found it to carry Westphalian coal to Normandy and load up with iron ore for the return trip to Bremerhaven and Hamburg. The thing can be done. But it cannot be done unless shipping and railway rates are radically altered and the problems of loading and unloading are thoroughly mastered. There are schemes that have been proposed for erecting plants in northern France for transforming British coal into coke and for transporting it thence quickly and cheaply to the French blast furnaces. With another type of ship or barge and a more intensive study than either the French or the British people have yet given to the possibilities of inland navigation, British coal might also, it has been suggested, be carried up the Seine into the heart of France, or down the northern French and Belgian waterways to the neighborhood of the ore fields.

Diplomacy, too, has a great work before it in this connection. The victory of the Allies will be robbed of one of its chief rewards if it does not end in making the Rhine and

its contributory system of canals and rivers an international waterway and thus open up to the outside world equal access to Central Europe. The Germans who have splendidly developed the navigation of the Rhine as far as Strassburg—have made it, indeed, a sort of interior ocean with ports that boast a greater tonnage than London—have always been curiously reluctant to improve the Lorraine waterways. Whether they were anxious not to set up a competitor with Westphalia, or whether they hesitated to develop a district which might one day pass again into French hands, the fact remains that in spite of many local petitions and of the comparatively small outlay that would be required, they have steadily refused to canalize either the Moselle or the Sarre. If the Rhine were made an international waterway the products of the Lorraine ore beds would quickly find a new and cheaper outlet, and British exports could reach the lost provinces without breaking bulk.

It has been shown, then, that Germany for forty-five years has built up her industrial and military position on the output of the Lorraine ore fields. If those ore fields are taken from her possession a staggering and apparently an irreparable blow will be struck at the very root of her prosperity and success. That blow she can partially counter by supplying German coal in return for French ore. It is to the interest both of France and of Great Britain that this loophole should be blocked. If it is allowed to remain open, and if large and profitable commercial relations are recreated between France and Germany, the danger is great that France may again be drawn into the German net. Great Britain therefore, the only other considerable source of supply in Europe, must bestir herself to furnish France with the indispensable coking coal in order to save her from being compelled to obtain it from Germany. Great Britain, again, must import iron ore from France in order to relieve her of the necessity of selling it to Germany; and France, one may be quite confident, stands ready to co-operate towards these two ends by such improvements in her internal water transport and her railway rate schedules as will facilitate the export of ore and the import of coal and coke. The question is more than one of pounds and francs and more than one of seizing and holding a commanding position in the fight for trade that will reopen when the war itself is over. It is more even than a question of uniting France and Great

Britain in the development of an industry that under their control will never be used for any but the peaceful purposes of commerce. It is a question of making it impossible for Germany ever to go to war again. Without Lorraine her career of conquest and spoliation comes automatically to a stop. With Lorraine it will always be within her power to resume it.

But though the problem of the lost provinces thus derives its chief importance from the ore fields of Lorraine they are not the only source of wealth that the French will find waiting for them when they resume possession. The spinning and weaving factories of Alsace, being easily destructible, had better perhaps be left out of the reckoning. Of more account is the oil field at Pechelbronn which is the only large petroleum well in the German Empire and the loss of which will be greatly felt. But far transcending spindles, looms and oil wells in value and significance are the deposits of potash salts that were discovered in the forest of Monnenbruch, nearly at the foot of Hartmansweilerkopf, some twelve or thirteen years ago. The first shaft for their extraction was completed in 1909 and in the following year 37,000 tons of crude salts were recovered. Since then the number of mines has increased to over twelve and investigations indicate that the potash deposits cover an area of seven square miles and range in thickness from six to thirty feet. By 1913 Alsace was already producing about 5 per cent of the total German output.

How far the field extends and what is its productive capacity cannot as yet be known with any precision. But the area that has already been developed, less than one-tenth of the estimated whole, has been judged to contain 300,000,000 tons of pure potash, valued at £700,000,000. The deposits which would, of course, pass into French possession with the restoration of Alsace, have an importance apart from their financial value. Hitherto the only workable and remunerative deposits of potassium salts have been those near Stassfurt in Saxony. Germany has thus held a world-monopoly of a salt which forms one of the most essential plant foods and is put to a dozen different commercial uses. About 90 per cent of the potash produced is used in agriculture, Germany retaining for home consumption over half of the entire output. Next to Germany the United States is the largest user of potash. She imports every year from

Germany about 600,000 tons and it has been estimated that had she her own source of supply in her own soil she would consume nearly twenty times as much. The whole world is at this moment literally starving for potash and when the war is over the whole world will have to pay ransom for it to Germany at Germany's own price. The discovery, therefore, of deposits that, while small compared with the Stassfurt fields, are still large enough to break the German monopoly, is an event of real moment. And the chance that has placed them in Alsace and revealed them just in time to enable France to step into full possession of so valuable an asset is a happy circumstance in which the whole world, outside of Germany and her Allies, will find a grim satisfaction.

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